Fig. 19 is a drawing showing an example of a wide area of interpolation reference that corresponds to the case of great importance;

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Fig. 20 is a flowchart showing a third embodiment of a process of making image quality vary depending on levels of importance;

Fig. 21 is a drawing showing the pixel of interest and neighboring pixels for the purpose of sharpness enhancement processing;

Fig. 22 is a drawing showing a non-linear transformation applied to Laplacian operation; and

Fig. 23 is a flowchart showing a fourth embodiment of a process of making image quality vary depending on levels of importance.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings, wherein like reference numerals designate identical or corresponding parts throughout the several views, the present invention will be described.

Page 59, delete lines 1-20 and insert therefor:

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What is Claimed Is:

IN THE CLAIMS

Enkrad

Please cancel Claims 1-13 without prejudice.

Please add new Claims 14-26 as follows:

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14. (New) A camera apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user within a camera screen;

an importance computation unit configured to determine levels of importance for respective areas of the image acquired by said camera unit in accordance with the detection by said line-of-sight detection unit; and

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a number-of-gray-scale-level determining unit configured to change a number of gray scale levels for the respective areas of the image in response to the determination by the importance computation unit.

15. (New) The camera apparatus as claimed in claim 14, wherein said number-of-gray-scale-level determining unit increases the number of gray scale levels in a first area compared with a second area that has a smaller level of importance than the first area.

16. (New) A camera apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user within a camera screen;

an importance computation unit configured to determine levels of importance for respective areas of the image acquired by said camera unit in accordance with the detection by said line-of-sight detection unit; and

a color interpolation processing unit configured to change color interpolation processing for the respective areas of the image in response to the determination by the importance computation unit.

17. (New) The camera device as claimed in claim 16, wherein said color interpolation processing unit performs a first processing in a first area, and performs a second processing in a second area that has a smaller level of importance than the first area, the first processing generating an image having higher quality than the second processing, and the second processing being faster than this first processing.

18. (New) A camera apparatus, comprising:

a camera unit configured to acquire an image;

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a line-of-sight detection unit configured to detect a point of eye fixation of a user within a camera screen;

an importance computation unit configured to determine levels of importance for respective areas of the image acquired by said camera unit in accordance with the detection by said line-of-sight detection unit; and

a sharpness enhancement processing unit configured to change sharpness enhancement processing for the respective areas of the image in response to the determination by the importance computation unit.

19. (New) The camera device as claimed in claim 18, wherein the sharpness processing unit performs a first processing in a first area, and performs a second processing in a second area that has a smaller level of importance than the first area, the first processing generating an image having higher quality than the second processing, and the second processing being faster than the first processing.

20. (New) A camera apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user within a camera screen;

an importance computation unit configured to determine levels of importance for respective areas of the image acquired by said camera unit in accordance with the detection by said line-of-sight detection unit; and

a noise removal processing unit configured to change noise removal processing for the respective areas of the image in response to the determination by the importance computation unit.

21. (New) The camera device as claimed in claim 20, wherein said noise removal processing unit performs a first processing in a first area, and performs a second processing in a second area that has a smaller level of importance than the first area, the first processing generating an image having higher quality than the second processing, and the second processing being faster than the first processing.

22. (New) A camera apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user within a camera screen;

an importance computation unit configured to determine levels of importance for respective areas of the image acquired by said camera unit in accordance with the detection by said line-of-sight detection unit; and

an image processing unit configured to perform at least one of processing of changing a number of gray scale levels for the respective areas of the image, processing of changing color interpolation processing for the respective areas of the image, processing of changing sharpness enhancement processing for the respective areas of the image, and processing of changing noise removal processing for the respective areas of the image in response to the determination by the importance computation unit.

23. (New) A method of acquiring an image, comprising the steps of:

acquiring an image;

detecting a point of eye fixation of a user within a camera screen;

determining levels of importance for respective areas of the acquired image in accordance with the detection of the point of eye fixation; and

changing a number of gray scale levels for the respective areas of the image in response to the determined levels of importance.

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24. (New) A method of acquiring an image, comprising the steps of:

acquiring on image;

detecting a point of eye fixation of a user within a camera screen;

determining levels of importance for respective areas of the acquired image in accordance with the detection of the point of eye fixation; and

changing color interpolation processing for the respective areas of the image in response to the determined levels of importance.

25. (New) A method of acquiring an image, comprising the steps of:

acquiring an image;

detecting a point of eye fixation of a user within a camera screen;

determining levels of importance for respective areas of the acquired image in accordance with the detection of the point of eye fixation; and

changing sharpness enhancement processing for the respective areas of the image in response to the determined levels of importance.

26. (New) A method of acquiring an image, comprising the steps of:

acquiring an image;

detecting a point of eye fixation of a user within a camera screen;

determining levels of importance for respective areas of the acquired image in accordance with the detection of the point of eye fixation; and